DOCUMENT RESUME

ED 334 478 CG 023 493

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TITLE Simple Convergences? Piagetian Theory and Its Relationship to the Epistemology of James Mark Baldwin.
PUB DATE Apr 89
NOTE 20p.; Paper presented at the Annual Meeting of the Western Psychological Association/Rocky Mountain Psychological Association (69th, Reno, NV, April 27-30, 1989).
PUB TYPE Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Child Development; Cognitive Psychology; Developmental Stages; *Epistemology; Learning Theories; *Piagetian Theory
IDENTIFIERS *Baldwin (James Mark)

ABSTRACT

Jean Piaget is credited with such topics as the synthesis of philosophy and the life sciences through a description of progressive stage by stage development, and a genetic epistemology founded on the principle of knowledge through processes of cognitive assimilation and accommodation. In actuality, these themes were originally postulated by James Mark Baldwin, a prominent early American psychologist first praised by his peers and then ignored primarily due to an interpersonal scandal which precipitated his self-imposed exile from the United States. Baldwin's view of the mind was based on a model of intentional action, which accounts for knowledge in terms of habit, assimilation, and accommodation. Over the years, he proposed a comprehensive genetic epistemology which embraced various models of experience organized into stages of logical scientific, social, moral, religious, and aesthetic consciousness. Despite the broad and innovative nature of these theoretical notions, the significance of his work remains relatively unexamined and unappreciated. Evidence suggests that the theoretical similarities between Piaget and Baldwin were more than just simple convergences. Though the two never met, it is highly probable that Pierre Janet, a longtime colleague of Baldwin and instructor of Piaget, conveyed Baldwin's theories to Piaget. Though Piaget denied that Baldwin had any specific effect on his work, Baldwin's tarnished American image would have made it easy for Piaget to claim his ideologies. (Author/LLL)

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# Simple Convergences?

# Piagetian Theory and Its' Relationship to the Epistemology of James Mark Baldwin

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Portions of this paper were presented at the 69th Joint Annual Western Psychological Association/Rocky Mountain Psychological Association Meetings, April 27-30, 1989 in Reno, Nevada.

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**ABSTRACT**

Jean Piaget is credited with such topics as the synthesis of philosophy and the life sciences through a description of progressive stage by stage development, and a genetic epistemology founded on the principle of knowledge through processes of cognitive assimilation and accommodation. In actuality, these themes were originally postulated by James Mark Baldwin, a prominent early American psychologist first praised by his peers and then ignored primarily due an interpersonal scandal which precipitated his self-imposed exile from the United States.

Evidence suggests that the theoretical similarities between Piaget and Baldwin were more than just simple convergences. Though the two never met, it is highly probable that Pierre Janet, a longtime colleague of Baldwin and instructor of Piaget, conveyed Baldwin's theories to Piaget. Though Piaget denies that Baldwin had any specific affect on his work, Baldwin's tarnished American image would have made it easy for Piaget to claim his ideologies.

**Simple Convergences?**

**Piagetian Theory and Its' Relationship**

**to the Epistemology of James Mark Baldwin**

Jean Piaget (1896-1980) is credited with such topics as the synthesis of philosophy and the life sciences through a description of progressive stage by stage development, and a genetic epistemology founded on the principle of knowledge through processes of cognitive assimilation and accommodation. Curiously, the bases of the these same theories were also suggested by the prominent early American psychologist, James Mark Baldwin (1861-1934), whom Piaget gave little or no reference to when citing these topics.

Though most individuals interested in Developmental Psychology know the background of Jean Piaget, few know of the contributions of James Mark Baldwin. According to Cahan (1984), Baldwin's work today has received little notoriety because:

- his theories lacked the empirical basis necessary to generate a social proof structure which would have enabled psychologists to join in the development and maturation of his theories;
- he bucked the positivist approach just at the point when it was firmly consolidating its' hold over American psychology;

- he attempted to reinforce the relations of psychology and philosophy at the time when G.S. Hall and others were liberating psychology from the authority of metaphysics and epistemology;
- his theory of conceptualizing subjectivity and interpersonal relations suffered in competition with Freud's;
- and, he suffered severe embarrassment in a scandal which precipitated his resignation from Johns Hopkins University as well as other professional appointments, thus leading to his departure from the United States.

This paper will attempt to answer the question: Did Jean Piaget originally derive the aforementioned theories and ideas, or did he assimilate them from James Mark Baldwin?

Accomplishments of James Mark Baldwin

James Mark Baldwin was an important pioneer of early American movements in psychology (Hernstein 1965). Baldwin has been credited with being the founder of child psychology (Lawry 1981); was president of the American Psychological Association in 1897 (Hilgard 1978); co-founding Psychological Review with James McKeen Cattell (Hilgard 1978); founding Psychological Bulletin; serving as president of the Psychological Congress (Lawry 1981); and establishing the first experimental psychology laboratories at the

University of Toronto, Canada (the first on British soil) and at Princeton University (Lawry 1981; Murchinson 1961).

Baldwin was also an ambitious author, writing 15 books (five with more than one volume) and publishing over 150 articles in his life. His first book, Handbook of Psychology, came off the press when he was only 29. In 1901 he edited Dictionary of Philosophy and Psychology, a work which combined and consolidated the philosophical and psychological terms of three languages (English, French, and German). 'Dictionary' was the first of its type, using over sixty collaborators to universally define and interlink psychological and philosophical terms. In the early years, outside of William James, James Baldwin was the most translated author from the United States (Roback 1961).

## Historical Background of James Mark Baldwin

Baldwin first became interested in psychological processes while attending Princeton University.[1] One class in particular, entitled "Natural Realism" (taught by Princeton President McCosh), was basically, according to Baldwin, "empirical psychology" (Murchinson 1961). While in

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[1] Baldwin eventually received his doctorate in Philosophy from Princeton University in 1889 (Hilgard 1978).

college, Baldwin was also exposed to a very influential piece of work, Physiologische Psychologie by Whilhelm Wundt.[2] Baldwin, so intrigued by the work of Wundt, accepted a fellowship offered to his graduating class to study under Wundt for two semesters at the University of Leipzig, Germany.

In the years 1890 to 1900, while holding various professorships (University of Toronto, Lake Forrest University, Princeton University), Baldwin became a frequent traveler to France. While in France, he became interested in hypnosis, seeking to better educate himself on the subject from Charcot and Janet (the Paris school) and Bernheim (the Nancy school) (Murchinson 1961). In 1903, Baldwin accepted an offer to be Chair of the Johns Hopkins University Psychology Department. He remained at Johns Hopkins until 1909, when he was asked to resign his academic position due to a scandalous incident.

## The Downfall of James Mark Baldwin

Today, the act would be described as a peccadillo, but

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[2] McCosh often provided Baldwin with private courses in the readings of Wundt, even making arrangements for the Princeton faculty to demonstrate some of Wundt's experiments for Baldwin's edification (Murchinson 1961).

in the summer of 1908, the act was considered "deplorable." In 1908, James Mark Baldwin, Department Chair of the Johns Hopkins Psychology Department, was caught in a police raid of a "colored" house of prostitution. Though the charges were eventually dropped, Johns Hopkins President Ira Remsen had somehow obtained the arrest information. Fear of bad publicity, however, persuaded Remsen not to censure Baldwin (Pauly 1979).

In the spring of 1909, when Baldwin was nominated for a Baltimore school board position, Remsen finally aired the arrest information.[3] Subsequently, Baldwin's school board nomination was revoked. Due to public pressures, Remsen and the Trustees demanded Baldwin's academic resignation.

Baldwin's friends and colleagues deserted him. Hugo Munsterberg, on confirming rumors of Baldwin's act, wrote that it "closes the matter for us Harvard men and practically for [all] psychologists" (Pauly 1979).[4] Baldwin

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[3] Though the United States was emerging from the Victorian era, many individuals (such as Remsen) continued to uphold the era's pristine values. Because the school board nomination would entrust Baldwin (sexual inclinations included) with the educational/social guidance of thousands of children, Remsen's own beliefs left him little choice but to release the arrest information.

[4] Early in his career, Baldwin was a proponent of the motor theory of consciousness (where differences in measured

(continued...)

was removed from the presidency of the International Psychological Congress and stripped of his editorial positions. To avoid further scandal, Baldwin resigned from Johns Hopkins University and accepted an existing offer by the Mexican government to revise that country's education laws. In later years, Baldwin settled in France where he lived the remainder of his life (Hilgard 1978; Roback 1964).

Theoretical Similarities between Piaget and Baldwin

James Mark Baldwin, who emerged from the American tradition of mental philosophy, developed one of the earliest genetic and evolutionist psychologies. His view of the mind was based on a model of intentional action, which accounts for knowledge in terms of "habit", "assimilation", and "accommodation." Over the years, he proposed a comprehensive genetic epistemology[5] which embraced various modes of experience organized into stages of logical, scientific, social, moral, religious, and aesthetic

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[4](...continued)
reaction time are due to the "sensory" and "motor" types of the observer). Hugo Munsterberg, also a proponent of the motor theory, once stated to Baldwin that "You and I are the motor men on the psychological car" (Roback 1964).

[5] Epistemology can be defined as the branch of philosophy that deals with the origin, nature, limits and acquisition of knowledge.

consciousness. Despite the broad and innovative nature of these theoretical notions, the significance of his work remains relatively unexamined and unappreciated (Broughton 1981). Broughton (1981, p. 396) writes:

> It was Baldwin not Piaget who first attempted a synthesis of philosophy and the life sciences through a description of progressive stage-by-stage development. It was Baldwin who first proposed developmental sequences in the domains of logical, scientific, social, moral, religious, and aesthetic consciousness and suggested how they might be related to each other. And it was Baldwin who first articulated a genetic epistemology founded on the principle of knowledge through processes of cognitive assimilation and accommodation.

However, perhaps due to his embarrassing incident in 1908/1909, most of Baldwin's theoretical framework for a genetic epistemology has been attributed to Jean Piaget.

Baldwin (in the first of his four-volume work entitled Thought and Things: A Study in the Development of Thought, or, Genetic Logic (1906-1915) made the differentiation between three types of logic. These logics were: 1) formal logic; 2) dialectical logic; and 3) genetic logic. In contrast to his formal and dialectical logics, the genetic logic adopted by Baldwin concerned itself with the elaboration of natural thought processes. Baldwin believed

that "these [natural processes] reveal themselves through [an] individuals' adaptive responses to their environments- their ability to form new habits, organize new experiences, and to learn more about the world in which they live" (Cahan 1984).

Piaget, in his work entitled The principles of genetic epistemology, expresses a view similar to Baldwin concerning the acquisition of knowledge. Piaget (1970b) writes:

> To assert the need for genetic inquiry...is...to note the existence of a construction not clearly defined and to stress the fact that in order to understand its causes and mechanism, one needs to understand all its phases or at least the greatest possible number.

Baldwin's concern with the relationships between thought and things can clearly be seen in Piaget's conceptualization of consciousness. Both men sought to explain the genetic relationships between alternative ways of understanding the association between thought and things, and both men were committed to a constructivist approach in which truth was founded in successive stages (Cahan 1984). Piaget (1970b, p. 15) writes:

> Knowing reality means constructing systems of transformations that correspond, more or less adequately, to reality. They are more or less isomorphic to transformations of reality. The transformational structures of which knowledge

> consists are not copies of the transformations in reality; they are simply possible isomorphic models among which experience can enable us to choose: Knowledge then, is a system of transformations that become progressively more adequate.

Cahan (1984) adds that central to both mens' knowledge was the conviction that the transformations of the relationships between thoughts and things "occur in an orderly, progressive way."

Similarities have also been noted about their ideas on successive modes of thought. Baldwin proposed four "modes of consciousness" which he suggested were embedded in the growth of logical thought. They were: 1) prelogical; 2) quasi-logical; 3) logical; and 4) hyperlogical. He defined a mode as the most basic level of making sense of the world in a given period of development (Cahan 1984). Concerning the relationship between these successive modes of thought, Baldwin (Baldwin [1906] 1975, p. 17) writes:

> The logical validities of one mode are found not to be those of the next-not to hold good in the next-but to be succeeded by others through the successive reorganization of function. There arises, therefore, a comparative logic, a theory of the successive reinterpretations of logical concepts and meanings-of the forms, postulates, etc. of knowledge.

Piaget's explanation of the relationship between successive

stages of development is somewhat similar to Baldwin's. Piaget (1970b, p. 13) writes:

> The fundamental hypothesis of genetic epistemology is that there is a parallelism between the progress made in the logical and rational organization of knowledge and the corresponding formative psychological processes.

As can be seen from their writings, both men proposed a stage development theory of truth where progressive psychological states of the organism coincide to "progressively more adequate, true epistemological models of the world." Both Piaget and Baldwin believed that the progressive stages of development represented closer approximations to an "ideal" state in which thoughts and things would be perfectly related (Cahan 1984).

In trying to explain the process of development, both Baldwin and Piaget relied on two complementary processes: assimilation and accommodation (Hilgard 1978). In simplified terms, assimilation is the taking in of a particular object, person, or experience; recognizing or noticing it, and linking it with earlier experiences. Accommodation, on the other hand, is the complementary process of assimilation. Accommodation involves changing strategies, concepts, or actions as a result of any new information taken in by assimilation. In other words, the

individual takes an active role in the acquisition of knowledge. One does not sit passively and absorb information "as is" in memory; thoughts are ingested and reorganized in order to improve our skills and strategies (Bee 1985).

Baldwin refers to the assimilatory process as "habit formation". In his words, "Habit is the tendency of an organism to continue more and more readily processes which are vitally beneficial" (Baldwin [1906] 1968). He goes on to say that a second process (accommodation) is required to guarantee change and therefore development. Baldwin ([1906] 1968, p. 454) writes:

> It is opposed to habit in two ways: first it has a reference to new movements, -a prospective reference, -while habit has reference always, to movements more or less old, a retrospective reference, -and so it runs ahead of habit; and second, it tends by the selection of new movements, to come into direct conflict with old habitual movements and so to disintegrate habits.

In reference to the concepts of assimilation and accommodation, Piaget (1970a, p. 707-708) writes:

> If assimilation alone were involved in development, there would be no variations in the child's structures. Therefore, he would not acquire new content and would not develop further. Assimilation is necessary in that it assures continuity of structures and the integration of new elements to these structures.

> Biological assimilation itself, however, is never present without its counterpart, accommodation ... Similarly, in the field of behavior, we shall call accommodation any modification of an assimilatory scheme or structure by the elements it assimilates.

As can be seen from the writings of Piaget and Baldwin, both men seem to agree that accommodation results as a kind of conflict with habit. These "conflicts" between new and old ideas or concepts result in growth, motivating the changes in structure as implied by development (Cahan 1984). In general terms, Baldwin ([1906] 1968, p. 454) writes:

> Accommodation is the principle by which an organism comes to adapt itself to more complex conditions of stimulation by performing more complex functions.

Both Piaget and Baldwin spent a considerable amount of their time searching for principles that governed the development of knowledge. The investigation of cognitive development in children was part of a broader interest to build a model of genetic epistemology - "an articulation of the nature and genesis of knowledge-whether that knowledge is manifested in the species, the culture, or the individual" (Cahan 1984).

As we look at the writings of both men, we begin to see that the theory of cognitive development postulated by

Baldwin looks much like that of Piaget. For both men, "development results in the successive reorganization of the cognitive processes and the objects of consciousness themselves by maintaining a balance between preserving the past and adapting to the present" (Cahan 1984).

Simple Convergences?

According to Piaget, "I was not at all influenced by Baldwin in details. What appears to you to be an influence is nothing but a simple convergence" (Broughton and Freeman-Moir 1982). Though Piaget denies influence by Baldwin, other facts suggest otherwise.

As mentioned earlier, during the years 1890 to 1900, Baldwin traveled to France, often meeting with Janet from the Nancy School. Coincidentally, one of Piaget's mentors was Janet. Piaget (in Broughton and Freeman-Moir 1982, p. 81) states:

> ... Pierre Janet, whose courses I took in Paris, cited him [Baldwin] constantly and had been equally very influenced by him ...

And (on page 82):

> So I knew Baldwin, above all, through Pierre Janet. You see, I was suspicious of the fact that Janet (who never read anything) knew Baldwin thoroughly. I asked him how that came about. Janet replied that ... he had lunched with Baldwin

every Monday for a year.

Therefore, through Janet, Baldwin's ideologies were conveyed to Piaget.

Piaget denies that Baldwin had any influence on his formulations of genetic epistemologies. Though Piaget was not influenced by Baldwin in detail, Wozniak (cited in Broughton and Freeman-Moir 1982) ascertains that since Baldwin's works were being published concurrently in French and English and were well regarded in French intellectual circles, Piaget could not have avoided Baldwin's ideas nor their influence. Piaget also believed in the process of assimilation, whereby "the ideas of others became yours when they were truly digested or assimilated in the same way..." (Broughton and Freeman-Moir 1982). This suggests that if Piaget fully understood a theory (like Baldwin's), it therefore became a theory of his own.

## Conclusions

The question still remains: Who should be credited for the developmental theories outlined earlier? Certainly, Baldwin should have received greater recognition for his work in the area of Developmental Psychology. One point of

view suggests that Piaget appropriated (or in milder terms, made more visible) Baldwin's ideas. Cahan (1984), on the other hand, suggests that Piaget merely carried Baldwin's ideas one step further and supported his [Piaget's] new ideas with empirical data.[6] Piaget matter-of-factly explains their analogous theories as "simple convergences", and nothing more.

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[6] One criticism of Baldwin's career (according to the academic community) was that he never supported his theories with empirical evidence.

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